

REMARKS

This is in response to the Office Action dated April 23, 2007. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

Initially, in response to the objection to the specification, the originally-filed specification and abstract have been reviewed and revised. To facilitate entry of the changes, a substitute specification and abstract has been prepared. No new matter has been added. Also enclosed is a "marked-up" copy of the original specification and abstract to show the changes that have been incorporated into the substitute specification and abstract. The enclosed copy is entitled "Version with Markings to Show Changes Made."

Further, by the above amendment, claims 1-20 are cancelled and replaced with new claims 21-31. Thus, claims 21-31 are currently pending in the present application.

Note that the new claims have been drafted so as to more clearly define the novel features of the present invention and to comply with the provisions of 35 U.S.C. 112, second paragraph. The language, which is considered indefinite by the Examiner, has not been used in the new claims. Thus, it is submitted that the rejection of claims 11-20 under 35 U.S.C. 112, second paragraph is now clearly obviated by cancellation of the rejected claims and the presentation of the new claims.

Next, on pages 3-4 of the Office Action, claims 11-13, 15-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-110,851. Also, claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCubbin (U.S. Patent No. 4,071,072) in view of JP 62-110,851. It is submitted that the present invention, as embodied by

the new claims, now clearly distinguishes over the applied prior art references for the following reasons.

The present invention is directed to a method and equipment for continuous casting of metal, where the main object and solution is related to controlling the metallostatic pressure in the mold at virtually zero (preferably zero). This effect is obtained by using a supply system, which is sealed from the surrounding environment, and by using a counter-pressure in the mold to “balance” the metallostatic pressure. As will be discussed below, the applied prior art references do not disclose or suggest the importance of the metallostatic pressure being close to zero, or employing a counter pressure in the mold to control the metallostatic pressure.

JP ‘851 relates to a method and device for continuous casting where a vacuum chamber is provided above a holding furnace to enable regulation (i.e., increase or decrease) of the metal head above the mold. However, with the solution disclosed in JP ‘851 it is not possible to apply a counter-pressure in the mold to control the metallostatic pressure in the solidification zone or the metal level in the mold. It is only possible to adjust the metal level in the holding furnace above the mold.

McCubbin describes a process for the production of smooth-surface aluminum ingots where a metal head of molten metal is held at 2.5 and 4 inches above the hot-top section of the mold, which implies that the metallostatic pressure is held at a level that would correspond to a pressure far above zero in the solidification zone of the metal in the mold. Furthermore, the solution proposed in McCubbin has no counter-pressure means for controlling the pressure in the

mold.

In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

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